

Message from Editors-in-Chief

Dear readers,

It is our pleasure to welcome you to the first issue of the fourth volume of the *Journal of Social Computing*, comprising the following 6 articles.

There are concerns about the ethicality and unbiasedness of predictive text models and other algorithm-based tools. In the first article entitled “The Ethico-Political Universe of ChatGPT”, John Martin examines how ChatGPT’s ethical and political stance affects its behavior. It’s found that attempts to give ChatGPT a moral compass have actually made it lean towards left-leaning politics and align with privileged groups. The article explores several key points. First, it questions whether ChatGPT can recognize and accept opposing values as valid while being intolerant of intolerance. Second, it investigates ChatGPT’s ability to reflect on its actions and take responsibility for ethical lapses. Third, it examines where ChatGPT stands in terms of the values it claims to uphold, considering the divisive nature of values in American society. Additionally, the article delves into ChatGPT’s perception of values, whether they are objective, subjective, or culturally specific, and its understanding of distinguishing facts from opinions. Lastly, it explores whether ChatGPT utilizes its programmed values to take a political position, given its exposure to value-based political justifications during training.

Classroom dialogue is important for academic performance, as it promotes knowledge construction and student interaction. However, previous studies relied on small-scale or qualitative data, overlooking the potential of big data from online classrooms. In the second article, “Prediction of Academic Performance of Students in Online Live Classroom Interactions —An Analysis Using Natural Language Processing and Deep Learning Methods”, Yuanyi Zhen, Jar-Der Luo, and Hui Chen analyze dialogues from a large online learning platform in China using natural language processing. By extracting interactive types and emotions, the authors develop neural network models to predict high- and low-performing students. The findings show that high-performing students in both STEM and non-STEM courses exhibit more positive emotions, cognitive engagement, and off-topic discussions throughout the lesson. The importance of metacognitive dialogue is evident in non-STEM courses but not in STEM courses. Also, high-performing non-STEM students show negative emotions at the end of lessons, while STEM students display positive emotions.

Nowadays, cultivating innovative talents is a significant concern in education. In China’s mentorship-based education system, the relationship between supervisors and students often impacts students’ creativity. To understand this influence from a psychological standpoint, in the third article “Emotional Mechanisms in Supervisor-Student Relationships: Evidence From Machine Learning and Investigation”, Jingyi Hu, Yaxuan Liu, Qijian Zheng, and Feng Liu employ machine learning and a questionnaire survey in two studies. The first study analyzes the emotional states of 16 postgraduate students during supervisor-student interactions using video interviews and machine learning techniques. The authors find that students experience negative emotions in poor supervisor-student relationships. Building on this, the second study conducts a questionnaire survey to explore the relationship between relevant variables. The results show that a positive supervisor-student relationship can significantly mitigate the negative effects of negative emotions. It also reduces power stereotype threat, decreases emotional labor surface behaviors, and promotes creativity expression. These findings provide insights into the psychological processes through which supervisor-student relationships influence creativity. They also have important implications for reducing emotional labor and enhancing creativity expression among postgraduate students.

The rise of social media has revolutionized communication and interaction. Trending topics on these platforms offer real-time insights into global events and are utilized for political campaigns, public awareness, and brand

promotions. However, these trends are vulnerable to manipulation by malicious users aiming to mislead the audience. In the fourth article, “Manipify: An Automated Framework for Detecting Manipulators in Twitter Trends”, Soufia Kausar, Bilal Tahir, and Muhammad Amir Mehmood examine the characteristics of users involved in manipulating Twitter trends in Pakistan. The authors present ‘Manipify’, an automatic detection and analysis framework for identifying malicious users within Twitter trends. Manipify comprises three modules: the user classifier, hashtag classifier, and trend analyzer. The user classifier uses tweet content and user behavior to detect manipulators and differentiate between human and bot users. The hashtag classifier categorizes trending hashtags into six categories, enabling examination of manipulator behavior across different categories. The trend analyzer module examines users, hashtags, and tweets for hashtag reach, linguistic features, and user behavior. The authors show Manipify user classifier can achieve 92% accuracy in classifying manipulators and 98% accuracy in identifying bots. Manipify is evaluated using a dataset of 652 trending hashtags, 5.4 million tweets, and 1.9 million users. Analysis reveals a predominance of political hashtags in the trending panel, with a higher contribution of human accounts in trend manipulation compared to bots.

Infant drowning in swimming pools is a serious concern, driving the need for automatic real-time detection. Detecting drowning incidents in infants poses unique challenges as they are small in size and have limited motion range, making it difficult for them to signal for help. In the fifth article, “Automatic Real-time Detection of Infant Drowning Using YOLOv5 and Faster R-CNN Models Based on Video Surveillance”, Qianen He, Zhiqiang Mei, Huisheng Zhang, and Xiuying Xu propose a video surveillance-based approach using Faster R-CNN and YOLOv5 models, for fast and accurate detection of infant drowning in real-world scenarios. They collect diverse live-scene videos of infant swimming and drowning from various natatoriums and create labeled datasets, some of which are modified to enhance the model’s generalization ability. Supervised learning experiments show that both models achieve over 89% mean average precision (mAP). While Faster R-CNN processes 6 frames per second with 62.04% precision, YOLOv5s processes 75 frames per second with around 86.6% precision. YOLOv5s proves to be the optimal model, offering comprehensive performance and valuable application for reducing pool accidents.

The final article in this issue, “Video Games Localization into Arabic: Gamers’ Reactions to Localizing PUBG and Free Fire”, authored by Shatha Jarrah, Saleh Al-Salman and Ahmad S Haider, investigates how Arab gamers in the Middle East and North Africa (MENA) region perceive the localization process of two video games: PUBG and Free Fire. Due to limited game production in the MENA region, Arab gamers rely heavily on games from Europe, America, and Japan. A questionnaire with 18 items and six constructs was used to collect data from 112 participants. The constructs included the need for subtitled games, technical aspects, language issues, language preference, attitudes towards game localization, and future actions and recommendations. The analysis revealed that participants had more positive attitudes towards game localization when the technical aspects and language issues of the games were better. The study suggests further research on localizing video games with different themes into Arabic.

We would like to thank our editorial board, reviewers, authors, and journal editorial office for their marvelous efforts in making this issue possible. We hope that our readers will enjoy reading these articles.

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